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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,530	06/07/2001	Kaneo Watanabe	10449-036001	7594

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EXAMINER
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ELMORE, STEPHEN C

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 02/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

pre

<b>Office Action Summary</b>	<b>Application No.</b> 09/876,530	<b>Applicant(s)</b> WATANABE ET AL.	
	<b>Examiner</b> Stephen Elmore	<b>Art Unit</b> 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-5 and 8-14 is/are allowed.
- 6) ☒ Claim(s) 6 and 7 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

1. This Office action responds to the amendment filed November 14, 2003, paper no. 5.
2. Claims 1-14 remain for examination.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Drawings***

4. Corrected drawings were received on November 14, 2003. These drawings are **approved**.

***Specification***

5. The objection to the specification is **withdrawn**.

***Claim Objections***

6. The previous objection to the claims is **withdrawn**, however, the following new objections are **made**.
7. Claim 1 is objected to because of the following informalities:
  - a. in line 7, "the output" lacks proper antecedent basis;
  - b. in line 8, "the provision of the data" lacks proper antecedent basis".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The rejection under 35 USC 112, second paragraph, is **withdrawn**.

***Claim Rejections - 35 USC § 102***

9. The rejections under 35 USC 102 are **withdrawn**, however, the following **new rejections** are made.

10. Claims 6 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen, USP 6,507,881.

Chen teaches the claimed data processing system (independent claim 6) connected to an external device via a connector for receiving and providing data between the external device, taught as a system for programming a periphery flash ROM to store firmware code using the IDE interface for a peripheral device such as a CDROM, see Abstract, and col. 1, lines 52- and also Summary, comprising:

**As to independent claim 6,**

a. the feature, *"a memory for storing firmware"* is taught as the Flash ROM element 202 for storing firmware code, see col. 3, lines 62-65;

b. the feature, *"a microcomputer connected to the memory for operating in accordance with the firmware stored in the memory, wherein, the firmware is directly written to the memory by the external device by directly connecting the memory and the connector,"* is taught as the microprocessor 200 being directly connected to the memory (Flash ROM 202) for operating in accordance with the firmware stored in the memory to control the periphery device whose Flash ROM is being updated (i.e., such as a microprocessor acting as a controller of a CDROM), see col. 3, line 34 - col. 4, line 8, and where the feature *"the firmware is directly written to the flash memory by the external device"* is taught as the host 208 being the external device performing the firmware upgrade function as a software cycle, see col. 4, line 18 - col. 5, line 30, and see col. 2, lines 43-45, which explicitly states,

"the firmware code is directly written (emphasis added) into the flash ROM through the flash controller"

whereupon, the claimed feature "*by directly connecting the memory and the connector*" is interpreted as taught as connectivity inherent to the "directly written" disclosed feature, since it is well known that a host computer communicates to a peripheral device (i.e., a CDROM device) over a direct IDE bus connection by using standard IDE connectors to make the physical/hardware connectivity represented in Fig. 2 by what are connectors at each end of the IDE bus shown in the figure to permit actual direct physical connections to be made so that the host could directly program the update firmware into the flash memory of the periphery device as disclosed in the reference, thereby meeting the claimed limitations to the extent they are claimed;

**As to dependent claim 7,**

c. as to the limitation "*wherein the data processing system selectively switches the firmware write operation and the reception and provision of the data in response to a switching signal,*" this is taught by Chen, see col. 4, lines 3-8, which states,

"Normally, after the flash ROM 202 is completely programmed, the flash controller 204 disables the flash ROM programming function and all IDE activities are treated back to their original definition to perform a normal mode operation for the periphery device coupled to the microprocessor 200 like the CDROM in Fig. 1."

which teaching is equivalent to a teaching of switching of modes, or modes of operation, from a firmware write mode to a normal mode where the normal IDE activities include the provision of data, and since the mode switching occurs, it necessarily occurs as a result of an inherent mode switch signal being present in the data processing system, thereby meeting the claimed limitation to the extent it is claimed.

***Claim Rejections - 35 USC § 103***

11. The rejections under 35 USC 103 are **withdrawn**.

***Allowable Subject Matter***

12. Claim 1 remains objected-to for informal matters, however, if the informal matter were corrected would be allowable over the prior art of record.
13. Claims 2-5 and 8-14 are allowed over the prior art of record.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. *Totani*, USP 5,603,056, teaches that it is well-known to externally directly program a flash memory in a serial mode using unassigned pins of a SCSI or ATA connector;
- b. *Le et al.*, USP 5,729,683, teaches that it is well known to program flash memory through a parallel port without the need for intervention by the system microprocessor.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen C. Elmore at (703) 308-6256. The examiner can normally be reached Mon-Fri from 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt M. Kim may be contacted at (703) 305-3821. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications, (703) 746-7240 for Non-Official/Draft communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the 2100 Tech Center Receptionist whose telephone number is 703-305-3900.



Stephen Elmore  
Assistant Examiner  
Art Unit 2186  
February 18, 2004



MATTHEW KIM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100